

ISS and Human Research Project Office Highlights March 12, 2010

ISS Research Program

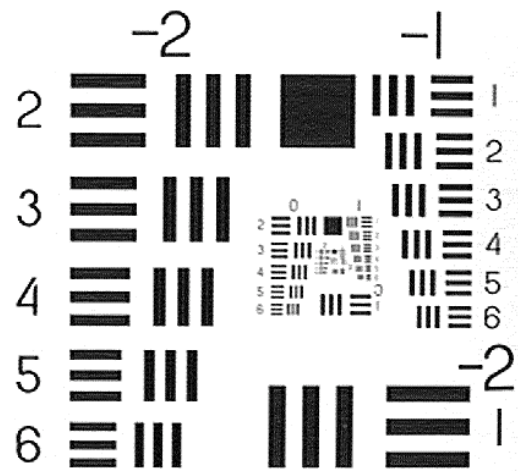
Drop test for BASS verifies flight experiment could extinguish fuel in worst case conditions..

The Burning And Suppression of Solids (BASS) experiment team conducted a drop test in the zero-g facility (GRC 5 second drop tower) on February 25, 2010. The test verified that the BASS experiment's 2 centimeter Poly-Methyl-Meth-Acryl-ate (PMMA) sphere burning in an air flow of 5 centimeters per second could be extinguished using nitrogen with a flow rate of 0.5 standard liters per minute through a 2 millimeter nozzle in 2.4 seconds. This test provided verification that the flight experiment could extinguish a fuel sample in the worst case conditions. The BASS experiment is scheduled to be launched on board Shuttle STS-133/Flight ULF-5 in September 2010 and operated on board the International Space Station (ISS).

The BASS experiment that will be operated in the Microgravity Science Glovebox (MSG) facility on board the ISS. The objective of BASS is to bridge the gap between normal gravity NASA-STD-6001 Test # 1 Method, ground based microgravity tests, and actual material flammability in microgravity. The BASS experiment will assess the effectiveness of an inert, gaseous extinguishing agent in putting out flames over different materials, geometries, and flow. (POC: MAH/Robert Hawersaat, (216) 433-8157)

Work continues on Fluid Integrated Rack/Light Microscopy (FIR/LMM) Module Checkout

Work continued on March 10, 2010, to characterize the Microscope with the 50x magnification and United States Air Force (USAF) standard test target. Image data was taken during crew exercise (believed to be one of the larger low frequency inputs) and it will be assessed over the next few days. All the features of LMM tested to date have functioned properly. If voluntary science activities are approved for March 20, 2010, Science operations will start with the first Constrained Vapor Bubble (CVB) module as early as the week of March 22, 2010. (POC: MAH/Ronald Sicker, (215) 433-6498)



USAF 1951 Test Target